

## NEW DISTRIBUTION RECORDS FOR ELEVEN SPECIES OF *PHYLLOPHAGA* (COLEOPTERA: SCARABAEIDAE)

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During extensive collecting conducted over the past several years, this author has taken a number of species of *Phyllophaga* where they have not been previously recorded as occurring. The majority of the new records are from Nebraska. Nebraska has been reasonably well-collected by coleopterists, but this was last done between 1900 and 1930 with many parts of the state being neglected. The state is once again undergoing serious and systematic Coleoptera collecting and has been since 1964. These new records cannot really be termed surprising in view of the considerable time gap in collecting which has elapsed since 1930. New species have had time to move into the state from bordering states, and the tremendous increase in interstate transportation has probably been an undeniable factor with regards to new introductions or occurrences. In general, the species recorded as being new to Nebraska may indicate a slightly northwards movement of some of the more common species occurring to the south in Kansas, or, more likely, they simply reflect more thorough collecting in the southern tier of counties. Furthermore, such modern collecting conveniences as blacklight and mercury vapor light were not available to the early collectors in Nebraska, and many common species could have been easily overlooked by not employing these methods.

The remaining species constituting new records in this paper were obtained during a short collecting trip to Mexico and British Honduras in the summer of 1971. Three species new to British

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Honduras (Sanderson, *in litt.*) were collected at blacklight, and I believe these new records are also indicative of more collecting where once there was little or none.

Taxonomic and distributional studies for North American *Phyllophaga* (*sensu stricto*) and the subgenus *Listrochelus* have been adequately covered by Luginbill and Painter (1953) and Saylor (1940) respectively. Bates (1886-1890) dealt with the Central American Scarabaeidae providing at least some important distributional data as well as describing two of the species dealt with here, and Blackwelder (1944) compiled a generally accurate checklist of Coleoptera from the tropical Americas listing known distributions by country; Dawson (1922) reviewed the scarabs known to occur in Nebraska, and Scott (1951) treated the *Phyllophaga* found in Nebraska. The state records published herein as new were obtained by comparisons of material with the data in the above six works and with the specimens in the collections at the University of Nebraska, the University of Kansas and Kansas State University.

#### NEW RECORDS

- Phyllophaga affabilis* (Horn). NEBRASKA, Sarpy Co., Bellevue, VIII-8-65, B. C. Ratcliffe, at blacklight, / $\overline{BCRC}$ / (5).
- Phyllophaga cinnamomea* (Blanchard). BRITISH HONDURAS, Stann Creek, VIII-10-71, B. C. Ratcliffe, at blacklight, / $\overline{BCRC}$ / (3); 10 mi. E. Roaring Creek, VIII-9-71, B. C. Ratcliffe, at blacklight, / $\overline{BCRC}$ / (6). Previously known to have occurred only in Mexico.
- Phyllophaga fraterna* Harris. NEBRASKA, Richardson Co., Schubert, V-10-70, B. C. Ratcliffe, at blacklight, / $\overline{BCRC}$ / (1).
- Phyllophaga gracilis* v. *angulata* Glasgow. NEBRASKA, Thomas Co., Halsey, VIII-25-69, B. C. Ratcliffe, at blacklight, / $\overline{BCRC}$ / (3); J. R. Baker, at blacklight, / $\overline{BCRC}$ / (14).
- Phyllophaga inepta* (Horn). NEBRASKA, Lancaster Co., Lincoln, VIII-6-69, B. C. Ratcliffe, at mercury vapor light, / $\overline{BCRC}$ / (1).
- Phyllophaga marginalis* (LeConte). NEBRASKA, Sarpy Co., Papillion, VI-12-68, at light / $\overline{BCRC}$ / (1).

- Phyllophaga mucorea* (LeConte). NEBRASKA, Red Willow Co., McCook, V-31-71, B. C. Ratcliffe, at mercury vapor light,  $\overline{BCRC}$  (2); NEBRASKA, McPherson Co., Sandhills Ag Lab, VI-13-73, J. L. Wedburg, in pitfall trap,  $\overline{BCRC}$  (1). A Common species in much of the Southwest; this record may indicate a considerable range extension for the species. Along with *fimbripes* (LeConte), two species of the subgenus *Listrocheilus* are now found in Nebraska.
- Phyllophaga rubiginosa* (LeConte). NEBRASKA, Nuckolls Co., Superior, VI-22-71, B. C. Ratcliffe, at blacklight,  $\overline{BCRC}$  (2).
- Phyllophaga sturmi* (Bates). BRITISH HONDURAS, Stann Creek, VIII-10-71, B. C. Ratcliffe, at blacklight,  $\overline{BCRC}$  (4); 10 mi. E. Roaring Creek, VIII-9-71, B. C. Ratcliffe, at blacklight,  $\overline{BCRC}$  (11). Previously known to have occurred only in Mexico.
- Phyllophaga submucida* (LeConte). NEBRASKA, Sarpy Co., Bellevue, V-4-64, B. C. Ratcliffe, at mercury vapor light,  $\overline{BCRC}$  (1).
- Phyllophaga tenuipilis* (Bates). BRITISH HONDURAS, Stann Creek, VIII-10-71, B. C. Ratcliffe, at blacklight,  $\overline{BCRC}$  (13). Previously known to have occurred only in Mexico, Guatamala and Nicaragua.

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ABSTRACT—New distributions are listed for eleven species of *Phyllophaga*. These include *P. cinnamomea* (Blanchard), *P. sturmi* (Bates) and *P. tenuipilis* (Bates) new to British Honduras and *P. affabilis* (Horn), *P. fraterna* Harris, *P. gracilis* v. *angulata* Glasgow, *P. inepta* (Horn), *P. marginalis* (LeConte), *P. mucorea* (LeConte), *P. rubiginosa* (LeConte) and *P. submucida* (LeConte) new to Nebraska. Brett C. Ratcliffe, Department of Entomology, University of Nebraska, Lincoln, Nebraska 68503.

*Descriptors: Scarabaeidae; New distribution records; Nebraska; British Honduras.*

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Ellis, W. N. and P. F. Bellinger. 1973. An annotated list of the generic names of Collembola (Insecta) and their type species. Monografien van de Nederlandse Entomologische Vereniging No. 7. 74 pp.

Obtainable from Bibliotheek der Nederlandse Entomologische Vereniging, Plantage Middenlaan 64 Amsterdam 1004, Nederland — 40 Dutch guilders.

Chapman, R. F. 1974. Oxford Biology Readers, 69: Feeding in leaf-eating insects, Oxford University Press, Ely House, London W.1. 16pp. 30 p. net.

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